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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,733	05/01/2002	Jean-Jacques Braconnier	022701-978	6028

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EXAMINER

METZMAIER, DANIEL S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/009,733

Applicant(s)

BRACONNIER, JEAN-JACQUES

Examiner

Daniel S. Metzmaier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-14,16,17 and 19-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,11-14,16,17,19 and 25-29 is/are rejected.
- 7) ☒ Claim(s) 6-10 and 20-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 1, 4-14, 16-17, and 19-29 are pending.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-5, 11-14, 16-17, 19, and 25-29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nippon Steel Corporation, EP 0 902 103 A1 (hereafter Nippon Steel). Nippon Steel (abstract; paragraph [0007] et seq, particularly paragraphs [0036] et seq ; paragraph [0048] ; and Tables 1 and 2 ; examples 8 and 34) discloses surface treatment compositions, which (fig. 1; and paragraph [0048]) take the form of colloids or a solution form with low solid dispersion depending on the relative amount of the diluting agent. Nippon Steel (Table 1 and 2; examples 8 and 34) discloses combinations of lanthanum oxide, phosphoric acid, and cerium acetate or combinations of cerium phosphate, phosphoric acid, and cerium acetate. Nippon Steel (Fig. 1; and paragraph [0015]) discloses the formation of

lanthanum orthophosphate particles. Nippon Steel clearly contemplates and discloses colloidal particle dispersions or low solid dispersions, which read on the claimed characterization of the compositions as sols.

Nippon Steel (paragraph [0049]) discloses the formation of films having a thickness of 0.1 to 1 micron. 0.1 micron equates to 100 nm. Thus, it is reasonable to conclude the particles in said dispersions would have a particle size of 100 nm or less to form said films. The claimed particle size of claims 5, 17, 19, and 28 would have been expected to be inherent to the compositions that are otherwise anticipated and Nippon Steel discloses films thicknesses consistent with said particle sizes.

Claims directed to polishing, anti-corrosion and an anti-UV agent are either anticipated or at least obvious since the intended use has been given little patentable weight for the defined compositions. Said compositions would have been expected to have been capable of use in each of the claimed utilities, i.e., polishing, anti-corrosion and an anti-UV agents.

Regarding the pH, Nippon Steel discloses the equilibrium formation of hydroxides and multiple buffering species, e.g.,  $\text{HPO}_4^-$ , acetate. The Nippon Steel reference clearly contemplates a range of pH values. Furthermore, Nippon Steel is directed to corrosion inhibitors, which would necessitate a mild pH rather than an aggressive pH of 4 or below, common of etching solutions.

The acids recited in the claims and the salts thereof as disclosed in the EP '103 reference are extremely water-soluble. Said acids would readily disassociate in

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aqueous solution. The aqueous solution would clearly exist as an equilibrium system having some acid and conjugate base therein, commonly known as buffers.

To the extent the claims differ in an exemplified colloid form and/or an exemplified particle size, Nippon Steel discloses variation of the relative amount of the dilution would result in varying particle dispersions as paste, colloidal and low solids dispersions. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to vary the relative dilution for the advantage of the desired film formation and thickness (see Fig.1). Some variation in the particle size would have been expected and has not been shown to be critical to applicant's invention.

#### ***Allowable Subject Matter***

4. Claims 6-10 and 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

5. Applicant's arguments filed November 2, 2005 have been fully considered but they are not persuasive.

6. Applicants (page 10 of the above noted response) assert there is no teaching in EP '103 to obtain the sols according to the present claims. It is pointed out to applicants that the process of making sols, i.e., claims 6-10 and 20-24, have been objected to as allowable subject matter over the prior art. The composition claims are examined based on the compositions claims and not how said compositions were made.

Product-by-process claims are examined based on the compositions. Process limitations are given patentable weight only to the extent that said process limitations impart a patentable distinction to the composition. It is noted that applicants' composition claims are NOT in product by process format and do not have this consideration. The compositions are indistinct from the prior art as set forth in the rejection.

7. Applicants (page 10) assert that the acid is not present. Initially, the claims lack any recitation of the amount of acid present. The acids recited in the claims and the salts thereof as disclosed in the EP '103 reference are extremely water-soluble. Said acids would readily disassociate in aqueous solution. The aqueous solution would clearly exist as an equilibrium system having some acid and conjugate base therein.

A *prima facie* case of anticipation and/or obvious having been presented, applicants have not met their burden of coming forward with evidence or probative reasons commensurate in scope with the claims to rebut said *prima facie* findings. Applicants have not met their burden in rebutting the rejection. Said rejections are deemed proper and have been maintained in view of the record as a whole.

Applicants (pages 10 and 11) assert the examiner has not presented a *prima facie* case based on a lack of an acid species. Regarding the pH and an explicit acid species, Nippon Steel discloses the equilibrium formation of hydroxides and multiple buffering species, e.g.,  $\text{HPO}_4^-$ , acetate. The Nippon Steel reference clearly contemplates a range of pH values. Furthermore, Nippon Steel is directed to corrosion inhibitors, which would necessitate a mild pH rather than an aggressive pH of 4 or

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below, common of etching solutions. A rudimentary understanding of buffers requires the presence of an acid species as claimed.

8. Applicants (page 11) assert the recitation (paragraph 0048 of EP '103) does not necessarily lead to a sol and said sol cannot be inherent to the reference. The EP '103 reference, as pointed out in the rejection and as noted by applicants specifically provides for sols as taking a colloidal form. A colloid is defined as a stable system of particles dispersed in a liquid, e.g., a sol. The recitation of a sol is not only inherent to the EP '103 reference, it is explicitly provided.

9. Applicants' (pages 11 and 12) arguments regarding the size of the particles are not deemed persuasive. Applicants are directed to MPEP 2112. The coating is clearly indicative of the particle size since the particles must be at most the thickness of the coating. There is not indication of particle size reduction, inherent or otherwise, in the reference.

10. Applicants (page 12) assert a sol may not be obtained by mere dilution of the starting product. Applicants' conclusion lacks evidence and/or basis in fact to rebut the reference explicit disclosure of the colloid form of the products.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not


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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Daniel S. Metzmaier  
Primary Examiner  
Art Unit 1712

DSM